

REMARKS

Claims 1-6 are pending. Claims 1 and 6 have been amended. Support for amended claim 1 can be found on pages 2, 3 and 5 of the specification. Support for amended claim 6 can be found on page 6 of the specification. Claim 7 has been added. Support for claim 7 can be found on page 7 of the specification. No new matter has been added. The Applicant respectfully submits that the pending claims are in condition for allowance.

Claims 1, 4, and 6 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,167,708 (“Wilhelm”), as evidenced by U.S. Patent No. 4,572,739 (“Rasmussen”).

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilhelm as evidenced by Rasmussen.

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilhelm as evidenced by Rasmussen as applied to claims 1, 4, and 6, and further in view of U.S. Patent No. 6,410,470 (“Wallar”).

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Wilhelm as evidenced by Rasmussen as applied to claims 1, 4, and 6, and further in view of U.S. Patent No. 4,456,486 (“Bernhard”).

Independent Claim 1 and Dependent Claims 2-7

Independent Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Wilhelm, as evidenced by Rasmussen.

Claim 1 recites: “A process for preparing a pigmentary composition, said process comprising bringing into contact: (a) hydrated chromium oxide-based particles (p_0), with a chromium (VI) content between 20 and 1000 ppm of the total mass of said particles (p_0); and (b) an iron (II) compound, to prepare a pigmentary composition comprising particles (p) with a

chromium oxide base, in which the chromium present as chromium (VI) represents at most 5 ppm of the total mass of the particles (p).”

Wilhelm does not teach or suggest, among other things, “[a] process for preparing a *pigmentary* composition . . . comprising particles (p) with a chromium oxide base,” that includes “bringing into contact: (a) hydrated chromium oxide-based particles (p_0), with a chromium (VI) content between 20 and 1000 ppm of the total mass of said particles (p_0); and (b) an iron (II) compound,” such that the “chromium present as chromium (VI) represents at most 5 ppm of the total mass of the particles (p)” (emphasis added). In contrast, Wilhelm discloses that the “preparation of chromate-free, Cr_2O_3 -containing pigments” is achieved by “blending pigment-forming raw materials corresponding to the Cr_2O_3 -containing pigments with from 0.5 to 10% by weight of boric acid or phosphoric acid . . . and then annealing the blend whereby the chromate-free, Cr_2O_3 -containing pigment is obtained.” Col. 1, lines 60-68. Wilhelm states that “[i]t has now surprisingly been found that the formation of chromate is prevented by the addition of boric and/or phosphoric acid to the mixture of raw materials before annealing.” Col. 2, lines 3-6.

By using boric and/or phosphoric acid, “[t]he pigments need no longer be washed and may therefore be subjected to a simple process of dry grinding.” Col. 2, lines 6-8. In fact, Wilhelm teaches away from methods that did not use boric and/or phosphoric acid by stating that:

[t]hese methods, however, have the disadvantage that annealing produces furnace clinker containing substantial quantities of Cr(VI). Grinding these pigments must therefore be followed by washing and the *wash water*, which contains Cr(VI), must be subjected to an expensive reductive after-treatment wherein the Cr^{3+} must be precipitated as $\text{Cr}(\text{OH})_3$ and removed.

Col. 1, lines 38-45 (emphasis added).

Examples 1, 3, 7, 9, and 11 of Wilhelm use Cr_2O_3 in combination with iron compounds such as Fe_2O_3 , iron oxide yellow, $\text{FeO}(\text{OH})$, and $\alpha\text{-FeO}(\text{OH})$. These pigments are mixed with

boric or phosphoric acid. The pigments do not require washing. Comparison Examples 2, 6, 8, 10, and 12 are made with the same combination of Cr_2O_3 and iron compounds such as Fe_2O_3 , iron oxide yellow, $\text{FeO}(\text{OH})$, and $\alpha\text{-FeO}(\text{OH})$. However, no boric or phosphoric acid is mixed with the pigments in these comparative examples. Comparison Example 2 states that

[a] furnace clinker containing about 200 ppm of Cr(VI) is obtained. The wet-ground pigment suspension is *washed* free from Cr(VI) in a filter press. The *wash water* is collected separately and reduced to Cr^{3+} with FeSO_4 . The Cr^{3+} is precipitated from this solution as $\text{Cr}(\text{OH})_3$ by means of NaOH and separated off. Only then may the wash water be discharged as effluent.

Col. 2, lines 48-55 (emphasis added). Comparison Examples 6, 8, 10, and 12 use a similar procedure as set forth in Comparison Example 2.

Thus, in Wilhelm, the same combinations of iron and chromium pigments have a high Cr(VI) content if not treated with boric and/or phosphoric acid. Wilhelm teaches that the *wash water* used to wash the pigment free of Cr(VI) must be treated with an iron compound such as FeSO_4 . The Applicant respectfully submits that, in Wilhelm, the *pigment* itself is not brought into contact with an iron (II) compound, such that the “chromium present as chromium (VI) represents at most 5 ppm of the total mass of the particles (p).”

The Examiner cites Rasmussen for the proposition that “chromate-free” means that the content of free chromate is less than 0.1 ppm Cr. Whether or not this is the case is irrelevant, given that Wilhelm does not teach or suggest “[a] process for preparing a pigmentary composition, said process comprising bringing into contact: (a) hydrated chromium oxide-based particles (p_0), with a chromium (VI) content between 20 and 1000 ppm of the total mass of said particles (p_0); and (b) an iron (II) compound, to prepare a pigmentary composition comprising particles (p) with a chromium oxide base, in which the chromium present as chromium (VI) represents at most 5 ppm of the total mass of the particles (p).”


In view of the foregoing, independent claim 1 is allowable. Consideration and allowance of independent claim 1 are respectfully requested.

Claims 2-7 depend from allowable claim 1 and therefore are allowable. In addition, claims 2-7 may contain additionally patentable subject matter for reasons that may not be discussed herein. Allowance of these claims is respectfully requested.

CONCLUSION

In view of the foregoing, allowance of the application is respectfully requested. The Examiner is strongly encouraged to contact the undersigned by telephone at the Examiner's convenience should any issues remain.

Respectfully submitted,



Gregory J. Hartwig
Reg. No. 46,761

Docket No. 085516-9005-00

Michael Best & Friedrich LLP
100 East Wisconsin Avenue, Suite 3300
Milwaukee, Wisconsin 53202-4108
(414) 271-6560
X:\CLIENTB\085516\9005\A2639664.2